

**Figure 2** A *pir* -dependent suicide vector

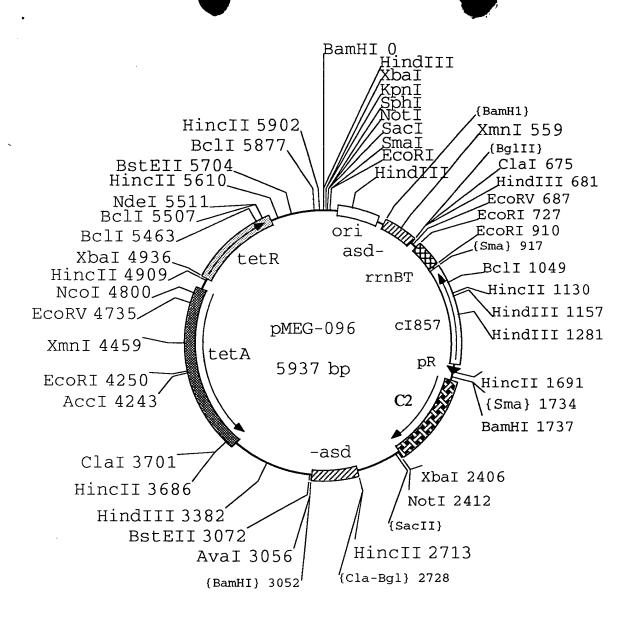


Figure 3

A pir-dependent suicide construct for insertion of the  $P_R$  driven c2 gene and c1857 repressor into the S.  $typhimurium\ asd\ gene\ on\ the\ chromosome$ .

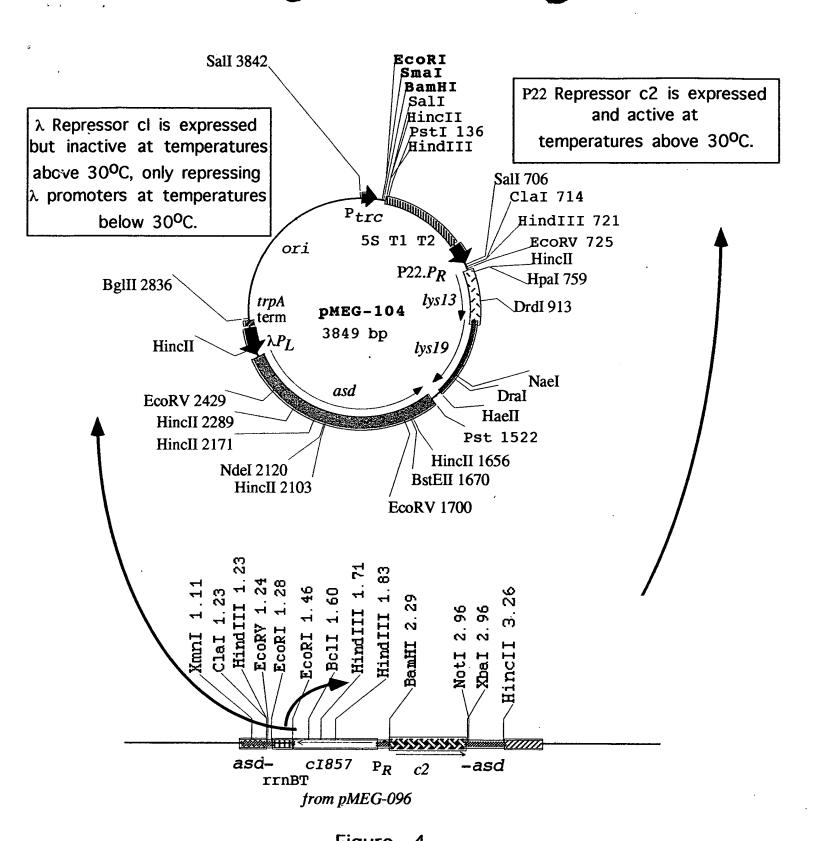


Figure 4
The Environmentally Limited Viability Components in the *S. typhimurium*Strain MGN-417

Figure 5

The ELVS expression vector intermediate.

—— рМЕG-104 (37C) 25 pMEG-104 (rt) - △ pYA292 (37C) - ▲ · pYA292 (rt) Growth of S. typhimurium Environmentally Limited Viability Construct 20 Relative to Normal S. typhimurium with Asd+ Vector 5 Time (hr) ٥, 1.0×10<sup>9</sup> 1.0×10<sup>6</sup> 1.0×10<sup>3</sup> 点 1.0×10<sup>2</sup> = 1.0×10° + 1.0x10<sup>7</sup> 1.0×10<sup>4</sup> 1.0x10<sup>10</sup>∃ CFU/mI

Figure 6

1.